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Fuel Focus

*Understanding Gasoline Markets in Canada
and Economic Drivers Influencing Prices*

Issue 23, Volume 8

November 29, 2013

Canada

Copies of this publication may be obtained free of charge from:
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ISSN 1918-3321

Aussi offert en français sous le titre *Info-Carburant*



National Overview

Average National Pump Prices Increased 2 Cents per Litre from Last Week

For the week ending November 26, 2013, Canadian average retail gasoline prices increased from the previous week by 2 cents per litre to \$1.26 per litre - a nine-week high. Since the last report two weeks ago, average Canadian pump prices increased by nearly 4 cents per litre. Overall, pump prices are 4 cents per litre higher than last year at this time.

Diesel fuel prices increased by nearly 2 cents per litre to \$1.32 cents per litre compared to the previous week. Furnace oil prices rose by nearly 2 cents per litre to \$1.21 compared to last week.

The increase in average retail pump prices in Canada reflected the higher North American wholesale gasoline prices in most centres.

Recent Developments

- New Motor Vehicle Sales:** The number of new motor vehicles (passenger and light trucks) sold in Canada from January to September 2013 rose by nearly 40,000 units (+3%) to 1.4 million units compared to the same period in 2012. New motor vehicle sales rose in all provinces, except for Quebec, where sales dropped by 3,000 units (-1%) to 329,000 units. New vehicle sales increased the most in Ontario and Alberta by 13,000 and 12,000 units, respectively. (Source: The Daily, <http://www.statcan.gc.ca/daily-quotidien/131115/dq131115c-eng.htm>)
- Car Demand to Grow:** According to the Organization of Petroleum Exporting Countries (OPEC) *World Oil Outlook* report released November 7, 2013, the total number of cars will more than double by 2035, compared to 2010 levels, reaching almost 1.9 billion cars. Global demand for middle distillates (diesel/gasoil) will rise from 26 million barrels per day in 2012 to 36 million barrels per day by 2035. In the OPEC's reference case, over the 2010-2035 period, OECD countries will see the volume of passenger cars rise by 125 million. In developing countries the rise is more dramatic, with an extra 800 million cars over this period. By 2028, there will be more cars in developing countries than in the OECD, with 64% of this increase in developing Asia. (Source: Global Refining & Fuels Report)
- \$200 million for Montreal Refinery:** Suncor, Canada's largest oil and gas company by market capitalization, announced it will invest \$200 million to prepare its Montreal refinery for Alberta crude oil. The investment is part of Suncor's plans to spend \$7.8 billion in capital spending and grow its oil production by 10 per cent in 2014. (Source: La Presse, Affaires, November 21, 2013)

Figure 1: Crude Oil and Regular Gasoline Price Comparison (National Average)

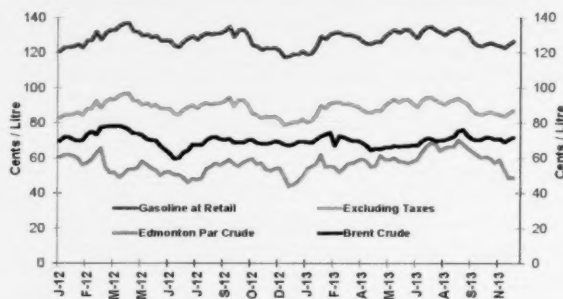
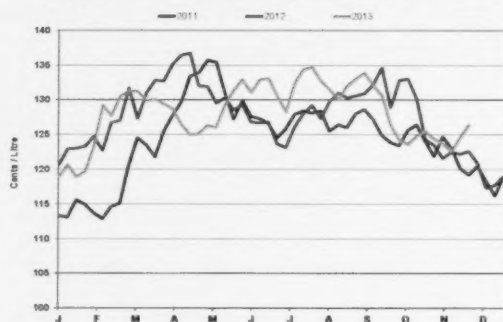


Figure 2: Weekly Regular Gasoline Prices



Changes in Fuel Prices

	Week of:	Change from:	
		Previous Week	Last Year
¢/L	2013-11-26		
Gasoline	126.4	+1.9	+3.8
Diesel	132.2	+1.5	+9.9
Furnace Oil	120.9	+3.2	+4.4

Source: NRCan

Natural Gas Prices for Vehicles

2013-11-26	¢/kilogram	¢/L gasoline equivalent	¢/L diesel equivalent
Vancouver	119.4	78.8	81.7
Edmonton	115.1	75.9	78.7
Toronto	110.6	73.0	75.6

Source: ¢/kg Kent Marketing Services Limited

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Retail Gasoline Overview

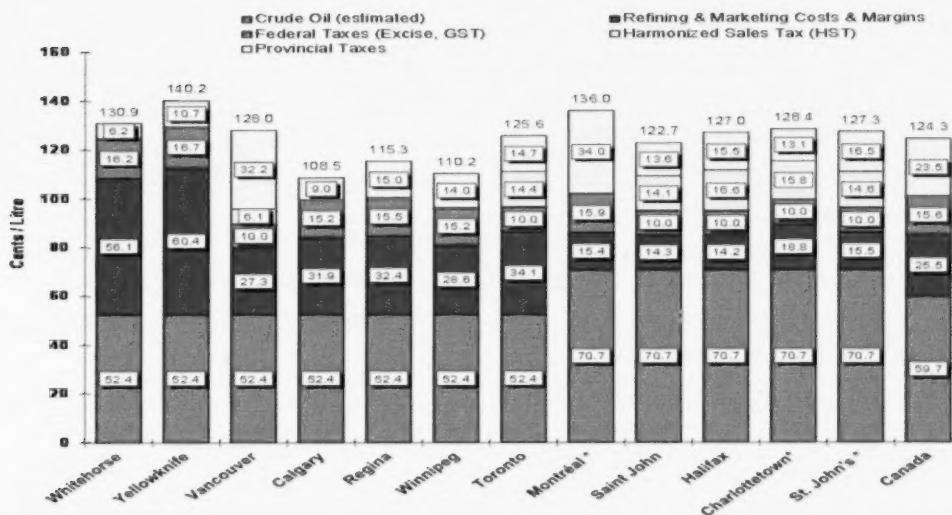
For the period ending November 26, 2013, the **four-week average** regular gasoline pump price in selected cities across Canada was \$1.24 per litre, an increase of 0.3 cent per litre compared to the price in the previous report of November 15, 2013. Compared to the same period in 2012, the average Canadian pump price is 2 cents per litre higher.

The **four-week average** crude component was 60 cents per litre, a decrease of 3 cents compared to two weeks ago. Crude oil prices are 0.3 cent per litre lower compared to the same time last year.

Average retail gasoline prices in Western centres decreased by 2 cents per litre to \$1.16 per litre when compared to the previous report and ranged from \$1.09 to \$1.28 per litre. Average prices in Eastern cities rose by 1 cent per litre to \$1.28 per litre from the previous week and ranged from \$1.23 to \$1.36 per litre.

At the national level, refining and marketing costs and margins registered an increase of 3 cents per litre to reach nearly 26 cents per litre. This is an increase of 2 cents per litre compared to the same time last year.

**Figure 3: Regular Gasoline Pump Prices in Selected Cities
Four-Week Average (November 5 to 26, 2013)**



Source: NRCan

* Regulated Markets

Retail Gasoline Prices and Inventory Replacement Costs

Gasoline retailers will seek to establish a retail price based on the cost of replacing the gasoline held in the storage tanks, not the cost of that product itself. Using replacement costs in retail pricing is especially important when wholesale prices fluctuate frequently. A retailer must generate enough cash from current retail sales to purchase the next delivery of gasoline. Otherwise, the retailer would be constantly relying on debt to finance wholesale gasoline purchases. When wholesale prices are in the 78 cent-per-litre range, a delivery of 34,000 litres can cost a retailer \$26,500.

When consumers observe retail prices changing at a retail outlet even though the station has not received a new shipment of gasoline, the store may be responding to a notice from its supplier about the cost of the next shipment. However, even these pricing decisions to respond to anticipated wholesale price changes are strongly influenced by local market conditions. Often, a retailer is unable to adjust prices to match the change in wholesale costs.

Source: National Association of Convenience Stores and NRCan.



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Wholesale Gasoline Prices

Wholesale gasoline price changes, compared to the previous week, range from an increase of more than 2 cents per litre to a decrease of 2 cents per litre.

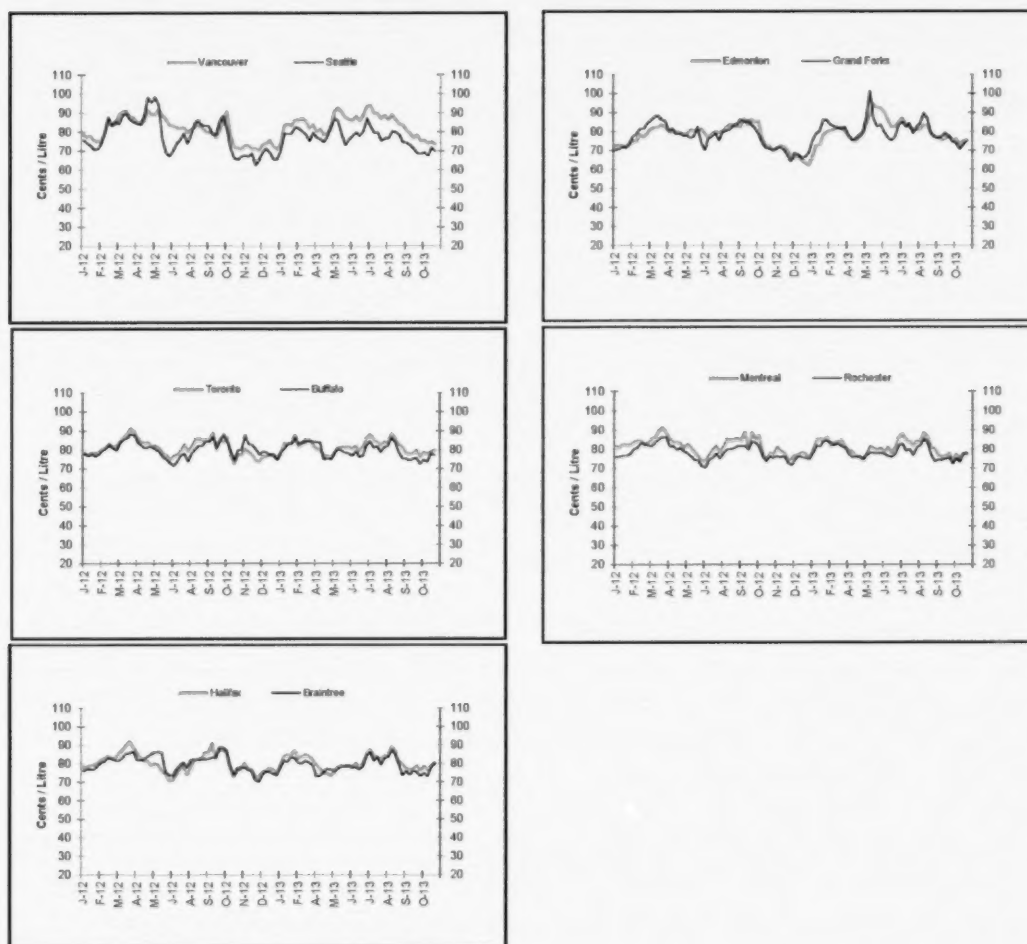
Wholesale gasoline price changes in Eastern markets, in both Canada and the United States, ranged from a decline of 1 cent per litre to an increase of 2 cents per litre compared to the previous week, ending the period in the 77 to 80 cent-per-litre range.

Wholesale gasoline price changes in Western centres ranged from a decrease of 2 cents per litre to an increase of nearly 2 cents per litre and ended the period between 70 and 75 cents per litre.

Compare to four weeks ago, wholesale price changes in Canadian and American centres ranged from a decrease of nearly 2 cents per litre to an increase of 7 cents per litre.

Figure 4: Wholesale Gasoline Prices

Rack Terminal Prices for Selected Canadian and American Cities Ending November 21, 2013
(CAN ¢/L)



Sources: NRCan, Bloomberg Oil Buyers Guide





Gasoline Refining and Marketing Margins

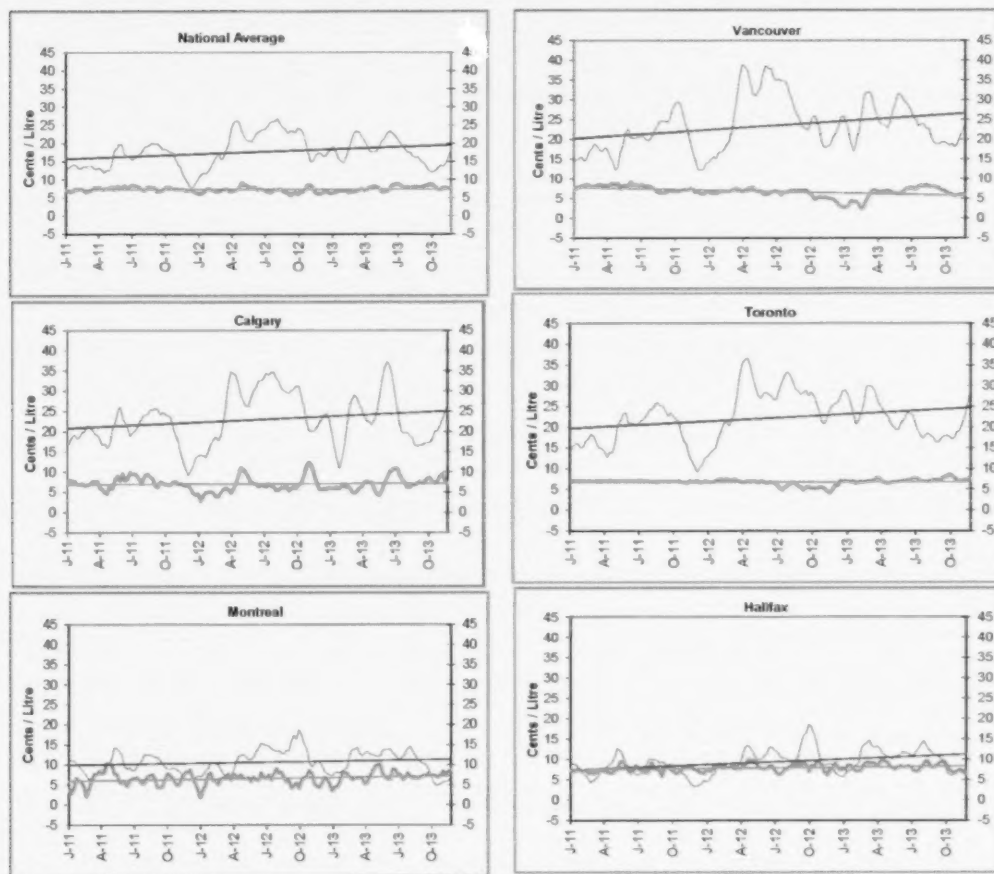
Four-week rolling averages are used for gasoline refining and marketing margins.

Refining margins increased in the last few weeks, as a result of wholesale gasoline prices increasing at a faster pace than crude oil prices. The price differential of the WTI and Brent marker crudes compared to the Edmonton Par crude has been widening. WTI and Brent crudes are trading at \$132/m³ and \$230/m³ (US\$20 and US\$35) per barrel higher than the Edmonton Par crude.

Because the Edmonton Par is used to calculate the margins and that wholesale gasoline prices in Canada follow North American markets – where the WTI and Brent tend to push up wholesale prices – refining margins in Canada are in an upward trend.

Overall, marketing margins hovered around 8 cents per litre. Marketing margins for the five centres ranged from a low of 6 cents per litre to a high of 9 cents per litre. Marketing margins have to cover the costs associated with operating an outlet and generate a profit for the station owner.

Figure 5: Gasoline Refining and Marketing Margins
Four-Week Rolling Average Ending November 26, 2013
----- Refining Margin ——— Marketing Margin



Source: NRCan





Crude Oil Overview

Crude Oil Price Differential Grows as Markets Disconnect

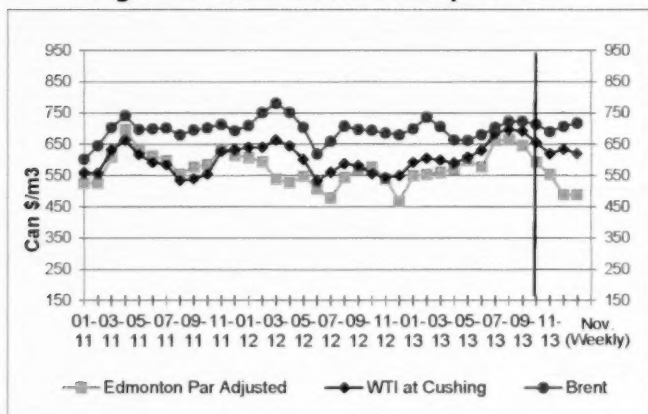
For the week ending November 22, 2013, prices for the three marker crudes averaged between \$488/m³ and \$718/m³, (US\$74 to US\$109 per barrel). Compared to the previous week, the price for the Edmonton Par and WTI ranged between a decrease of \$1 to \$14/m³ (US\$0.04 to US\$2 per barrel), respectively, to an increase of \$10/m³ (US\$2 per barrel) for Brent.

Edmonton Par prices dipped to their lowest level since early 2013. The price gap between WTI and Brent crude oil has increased to \$97/m³ (US\$15 per barrel) for the week ending November 22, 2013. The declining value of the Canadian dollar further exacerbates the situation as more Canadian dollars are needed to purchase goods valued in U.S. dollars.

North American crude oil prices eased for the week ending November 22, 2013, on high U.S. crude oil inventories and following U.S. Federal Reserve indications that it would begin tapering the economic stimulus in the coming months. The Federal Reserve \$85 billion bond buying program supports NYMEX crude oil prices by weakening the U.S. dollar, making oil less expensive to buy with other currencies.

Market analysts expect that Brent crude oil prices could drop in the future as tensions diminish in Middle East crude oil producing countries, the recent six-month Iranian agreement on its nuclear program and with rising crude oil supplies.

Figure 6: Crude Oil Price Comparisons



Canada's Energy Supply and Demand Projection to 2035

According to the National Energy Board's (NEB) report called *Canada's Energy Future 2013: Energy Supply and Demand Projections to 2035* released on November 21, 2013, there will be enough supply to meet Canada's growing energy needs for the foreseeable future. In fact, over the next 20 years, the NEB projects energy production levels to exceed domestic requirements, resulting in growing amounts of energy available for export.

Total Canadian energy production will grow substantially between now and 2035, with oil leading the way. Oil production increases by 75 per cent. Natural gas production increases 25 per cent. Canadian total electricity generation and supply increases over the projection period as well. Natural gas-fired power generation capacity increases substantially, largely at the expense of coal-fired capacity, and non-hydro renewable capacity doubles its share of the capacity mix.

Improvements in energy efficiency will mean Canadians will be using less energy in the future to produce more. By 2035, the energy used per unit of economic output is projected to be 20 per cent lower than current levels.

Source: NEB, <http://www.neb-one.gc.ca/clf-nsi/rthnb/nws/nwsrsls/2013/nwsrsls31-eng.html>

Changes in Crude Oil Prices

Crude Oil Types	Week Ending: 2013-11-22		Change From:			
			Previous Week		Last Year	
	\$Can/ m ³	\$US/ bbl	\$Can/ m ³	\$US/ bbl	\$Can/ m ³	\$US/ bbl
Edmonton Par	488.04	74.07	-0.60	-0.04	-49.47	-11.71
WTI	620.07	94.10	-14.12	-2.08	+69.24	+6.18
Brent	717.71	108.92	+10.41	+1.64	+21.09	-2.28

Source: NRCan



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Price Differentials for Similar Quality Heavy Crude Oils

In the previous Fuel Focus report, Issue 22 of November 15, 2013 <http://www.nrcan.gc.ca/energy/node/2410#supsup>, we discussed the price differentials of light crude oils. This article will review the factors affecting the price differentials for similar quality heavy crude oils. The price of heavy crude oil in different geographic markets has major implications for Canadian producer revenues, for Canadian economic growth and job creation, and for royalty and tax revenues to governments.

Canadian heavy crudes are sold at prices heavily influenced by the Western Canadian Select (WCS) price. WCS is a benchmark Canadian heavy crude oil, with American Petroleum Institute (API) gravity of 20 degrees. WCS is blend of heavy conventional and bitumen crude oils and sweet synthetic and condensate diluents. The price of WCS specifies delivery at the Hardisty terminal southeast of Edmonton. A similar quality crude oil sold globally is a heavy crude oil blend called Maya produced in Mexico. Maya prices specify delivery to the Mexican loading ports at Cayo Arcas and Salina Cruz. Maya is slightly lighter than WCS and has an API gravity of 22 degrees. In effect, Maya prices are a global reference price for heavy oil delivered to tidewater.

Traditionally, the discount between WCS-Maya reflected only the geographic location of the crudes and the slight difference between the qualities of the two crudes. For example, between 2005 and 2010, WCS traded at an average price of \$340/m³ (US\$54 per barrel) and Maya averaged \$377/m³ (US\$ 60 per barrel). Since 2011, the supply and demand balance for heavy crude oil in North America has led to lower heavy crude oil prices in North America compared to heavy crude oil prices globally.

In 2011, Maya oil prices averaged \$128/m³ (US\$ 20 per barrel) higher than WCS prices. Maya prices were an average of \$164/m³ (US\$ 26 per barrel) higher than WCS in 2012. In the first quarter of 2013, Maya prices averaged \$230/m³ (US\$ 36 per barrel) higher than WCS. The wide differentials made the movement of WCS by rail more economical and increased volumes of WCS were then transported by rail to tidewater (the U.S. Gulf Coast) where WCS could then be sold at a higher price. This supported the narrowing of the WCS/Maya differential going into the summer of 2013. However, the narrowing of the heavy oil price differentials was short lived. Since July 2013, the WCS-Maya oil price differential has widened significantly. On November 25, 2013, the WCS-Maya oil price differential reached \$151/m³ (US\$ 24 per barrel) – double the size of the July 2013 price differential.

Factors in the recent widening of WCS-Maya oil price differential include:

- Insufficient pipeline capacity between Canada and the U.S. Midwest, and a growing shortage of cars to transport crude by rail;
- Delays in obtaining U.S. approval to construct the north leg of the Keystone XL pipeline;
- Increasing supplies of heavy crude in the U.S. Midwest, due to rising Canadian oil sands exports;
- A fall in refinery demand for heavy crude in the U.S. Midwest with the end of the asphalt season;
- Planned and unplanned refinery maintenance which has a significant impact on heavy oil prices with only a limited number of refineries in Canada and the U.S. having the capacity to process oil sands crude; and,
- Falling U.S. crude oil demand due to improvements in energy efficiency, and growth in the use of oil substitutes (e.g. natural gas).

Crude Oil Price Comparisons
(Monthly average)

